

Amendment

In the Claims

1. (Currently amended) A method of lubricating two sliding surfaces, wherein at least one surface is a charged surface, comprising administering between the two surfaces a lubricating composition to the surface,

wherein the lubricating composition comprises a graft copolymer with a polyionic backbone and non-interactive side chains and an aqueous medium, wherein the polyionic backbone adsorbs onto the charged surface to produce a lubricated surface, and wherein the resulting lubricated surface has a lower friction coefficient between the lubricated surface and the second sliding surface than the coefficient of friction between the charged surface and the second sliding surface in the absence of the lubricating composition.

2. (Original) The method of claim 1, wherein the polyionic backbone is poly(cationic).

3. (Previously presented) The method of claim 2, wherein the polyionic backbone is selected from the group consisting of nonpeptide polyamines, polyamino acids and polysaccharides having net positive charge at neutral pH.

4. (Withdrawn) The method of claim 3, wherein the polyionic backbone is poly-L-lysine.

5. (Original) The method of claim 1, wherein the polyionic backbone is poly(anionic).

AMENDMENT AND RESPONSE TO OFFICE ACTION

6. (Original) The method of claim 5, wherein the polyionic backbone is a polyamino acid having net negative charge at neutral pH.
7. (Withdrawn) The method of claim 6, wherein the polyamino acid is poly(L-glutamic acid).
8. (Original) The method of claim 1, wherein the non-interactive side chains are poly(ethylene glycol) chains.
9. (Original) The method of claim 8, wherein the poly(ethylene glycol) chains are modified to contain a functional group at the free end.
10. (Original) The method of claim 9, wherein the copolymer further comprises biotin, wherein the biotin is attached to at least one poly(ethylene glycol) chain.
11. (Withdrawn) The method of claim 1, wherein the charged surface is a metal oxide.
12. (Currently amended) ~~A~~ Two sliding surfaces, wherein at least one surface is a lubricated surface, comprising a charged surface and a lubricating composition, wherein the lubricating composition comprises a graft copolymer with a polyionic backbone and non-interactive side chains and an aqueous medium, wherein the polyionic backbone adsorbs onto the charged surface, and wherein the lubricated surface has a lower friction coefficient between the lubricated surface and a the second sliding surface than the coefficient of friction between the charged surface and the second sliding surface in the absence of the lubricating composition.

AMENDMENT AND RESPONSE TO OFFICE ACTION

13. (Withdrawn) The lubricated surface of claim 12, wherein the graft copolymer is PLL-g-PEG.
14. (Withdrawn) The lubricated surface of claim 12, wherein the charged surface is a metal oxide.
15. (Canceled)
16. (Previously presented) The method of claim 1, wherein the charged surface is oxidized silicon.
17. (Previously presented) The lubricated surface of claim 12, wherein the charged surface is oxidized silicon.
18. (Previously presented) The lubricated surface of claim 12, wherein the polyionic backbone is selected from the group consisting of nonpeptide polyamines, polyamino acids and polysaccharides having net positive charge at neutral pH.
19. (Canceled)
20. (Canceled)